

REMOTE INDICIA READING SYSTEM

ABSTRACT OF THE DISCLOSURE

An apparatus is provided for reading indicia, such as a bar code, from a remote location. The apparatus includes a light source for illuminating the indicia, preferably with infrared illumination. The indicia is incorporated in a reflective medium, disposed remotely from the light source, which reflects the illumination provided by the light source. The apparatus includes a light sensing device also disposed remotely from the reflective medium.

The light sensing device receives the reflected image of the indicia and generates an indicia image signal based thereon. An indicia processing system receives and operates on the indicia image signal to extract indicia information therefrom. The light source and the light sensing device may be located up to 75 feet or more away from the reflective medium, and the reflective medium may be moving at speeds of up to 85 miles per hour or more relative to the light source and the light sensing device. To prevent blurring of the reflected indicia image, the infrared illumination is preferably provided in pulses, and the light sensing device is shuttered in synchronism with the pulses. The indicia and reflective medium may be attached to a motor vehicle, a trailer portion of a tractor/trailer rig, a railroad box car or container, or any other type of vehicle, package, or cargo container.

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